

## Claims

What is claimed is:

1. A method for checking page size dependency comprising:  
generating an interposing library comprising a first modified interface, wherein the first modified interface is dependent on a native page size;  
intercepting a call into a kernel by the interposing library, wherein the call is dependent on a non-native page size;  
modifying the call using the first modified interface to obtain a modified call; and  
generating a response to the modified call by the kernel using the native page size.
2. The method of claim 1, further comprising:  
generating the call into the kernel by a user-level application.
3. The method of claim 1, further comprising:  
forwarding the modified response to a user-level application.
4. The method of claim 1, further comprising:  
setting the non-native page size.
5. The method of claim 1, further comprising:  
intercepting the response from the kernel by the interposing library; and  
modifying the response using a second modified interface dependent on the non-native page size to obtain a modified response, wherein modifying the response comprises modifying the response using the non-native page size.
6. The method of claim 1, wherein generating the interposing library comprises:  
searching a plurality of interfaces to determine which of the plurality of interfaces include the native page size; and

modifying the plurality of interfaces that include the native page size to obtain a plurality of modified interfaces, wherein modifying the plurality of interfaces uses the non-native page size.

7. The method of claim 1, further comprising;  
determining the page size dependency using the modified response.
8. A system for checking page size dependency comprising:  
a kernel using a native page size;  
a user-level application; and  
an interposing library configured to emulate a non-native page size to the user-level application, wherein the interposing library emulates the non-native page size by modifying results from the kernel based on the non-native page size.
9. The system of claim 8, wherein the interposing library is further configured to modify a call dependent on the non-native page size from the user-level application to a call dependent on the native page size for the kernel.
10. The system of claim 8, wherein the interposing library uses a modified interface to emulate the non-native page size to the user-level application.
11. The system of claim 8, wherein the interposing library uses a modified interface to emulate the native page size to the kernel.
12. The system of claim 8, wherein the interposing library comprises a plurality of modified interfaces for emulating the non-native page size, wherein the plurality of modified interfaces are generated by searching a plurality of interfaces to determine which of the plurality of interfaces are dependent on the native page size and modifying the plurality of interfaces that include the native page size to obtain a plurality of modified interfaces.

13. A computer system for checking page size dependency, comprising:
  - a processor;
  - a memory;
  - a storage device;
  - a computer display; and
  - software instructions stored in the memory for enabling the computer system under control of the processor, to:
    - generate an interposing library comprising a first modified interface, wherein the first modified interface is dependent on a native page size;
    - intercept a call into a kernel by the interposing library, wherein the call is dependent on a non-native page size;
    - modify the call using the first modified interface to obtain a modified call; and
    - generate a response to the modified call by the kernel using the native page size.
14. The computer system of claim 13, further comprising software instructions to:
  - generate the call into the kernel by a user-level application.
15. The computer system of claim 13, further comprising software instructions to:
  - forward the modified response to a user-level application.
16. The computer system of claim 13, further comprising software instructions to:
  - set the non-native page size.
17. The computer system of claim 13, further comprising software instructions to:
  - intercept the response from the kernel by the interposing library; and

modify the response using a second modified interface dependent on the non-native pages size to obtain a modified response, wherein modifying the response comprises modifying the response using the non-native page size.

18. The computer system of claim 13, wherein software instructions for generating the interposing library comprise:

software instructions to search a plurality of interfaces to determine which of the plurality of interfaces are dependent on the native page size; and  
software instructions to modify the plurality of interfaces that are dependent on the native page size to obtain a plurality of modified interfaces

19. The computer system of claim 18, wherein software instructions for modifying the plurality of interfaces use the non-native page size.

20. A network system having a plurality of nodes, comprising:

a kernel using a native page size;  
a user-level application; and  
an interposing library configured to emulate a non-native page size to the user-level application, wherein the interposing library emulates the non-native page size by modifying results from the kernel based on the non-native page size,

wherein the kernel executes on any node of the plurality of nodes,  
wherein the user-level application executes on any node of the plurality of nodes,  
wherein the interposing library executes on any node of the plurality of nodes